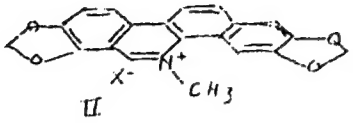
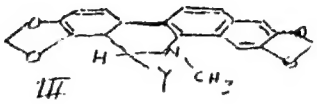
HUNGARY / Organic Chemistry. Natural Products and Their Synthetic Analogs. G-3

Abs Jour: Ref Zhur-Khimiya, No 2, 1959, 4860.

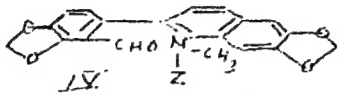
Abstract:



II



III



IV

IIa X = OH^-, б X = CH_3COO^-, в X = Cl^-; IIIa Y = OH, Y = H, б Y = $OCH_2C_6H_5$, в Y = NHC_6H_5, г Y = $NHNHC_6H_5$, е Y = CH_2NO_2, ж Y = CH_2COOH; IVa Z = H, б Z = $CCCH_3$.

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HUNGARY / Organic Chemistry. Natural Products and Their Synthetic Analogs. G-3

Abs Jour: Ref Zhur-Khimiya, No 2, 1959, 4860.

Abstract: 5 gms V in 42 ml C_6H_6 are treated with 1.63 gm HIO_3 (over a water bath); after refluxing for 1 hr, filtering, and acidification with alcoholic HCl, 3.6 gms of a mixture of IIc and IIIb (as the hydrochloride) is obtained. When this mixture is refluxed with a twelve-fold excess of water, IIc dissolves, leaving an insoluble residue (2.14 gms) which proved IIIb, mp 192°; the filtrate on standing in the cold yields 1.16 gm IIc. IIc (0.9 gm) is also prepared from 1.0 gm IIIb in 180 ml alcohol by refluxing for 7 hrs with a solution of 1.1 gm $FeCl_3$ in 15 ml conc HCl plus 20 ml water. When the oxidation is repeated, near-theoretical yields are obtained. IIa (0.7 gm), mp 264° (decomp), is pre-

Card 4/8

HUNGARY / Organic Chemistry. Natural Products and Their Synthetic Analogs. G-3

Abs Jour: Ref Zhur-Khimiya, No 2, 1959, 4860.

Abstract: pared by treating 3.0 gms IIc in 100 ml water with 50 ml 25% NaOH, extracting with ether, and allowing the extract to stand in the cold. When I is recrystallized from C_5H_5N or from $C_6H_5NO_2$, compounds containing two molecules of I (inter-etherification) in combination with two molecules of C_5H_5N (mp 277°) or with two molecules of $C_6H_5NO_2$ (mp 226°) are obtained; with $C_6H_5CH_2OH$ (20 ml + 0.1 gm I over a water bath), 0.1 gm IIIc is formed, mp 191°. IIId has been prepared in theoretical yields by grinding 0.85 gm I with 2 ml H_2O - 0.24 gm $C_6H_5NH_2$; mp 239-240° (from $CHCl_3$ + benzine, bp 50-100°). The hydrogenation of 1.0 gm IIIc in 110 ml

Card 5/8

HUNGARY / Organic Chemistry. Natural Products and Their Synthetic Analogs. G-3

Abs Jour: Ref Zhur-Khimiya, No 2, 1959, 4860.

Abstract: evolution has ceased) and then for 30 min at 110° followed by 60 min at 120-130°; the solvent is distilled off, the solution is made alkaline with NaOH, and the product is recrystallized from boiling water, giving 1.2 gm of the tetrahydrate of the Na salt of IIIg; the corresponding methyl ester (1.0 gm of the Na salt of IIIg in 25 ml 15% HCl is heated for 4 hrs with CH_3OH over a water bath) is obtained in yields of 66.2%, mp 182-183° (from abs CH_3OH); recrystallization from ethanol gave the ethyl ester in yields of 97.5%, mp 148-149°. When an anhydrous solution of IIIc in $C_6H_5CH_2OH$ is refluxed for 5 min, a near theoretical yield of nor-I is obtained (2,3,7,8-bis, methylenedihydroxy- [illegible] -naphthophenantridine), mp 279-280°;

Card 7/8

TOOKOS, Ildiko

Effect of variable loads on the operation of tower-shaped trickling filters. Hidrologiai kozlony 41 no.5:398-406 O'61

1. Vizgazdalkodasi Tudomanyos Kutato Intezet, Budapest.

TOOKOS, Ildiko; TIEFENBACH, Laszlo

Chemical analysis of milk plant waste waters and some conclusions drawn from it. Elelm ipar 18 no.6:171-178 Je '64.

1. Scientific Research Institute of Water Resources Development (for Tookos). 2. Milk Industry Enterprise of Budapest and Vicinity (for Tiefenbach).

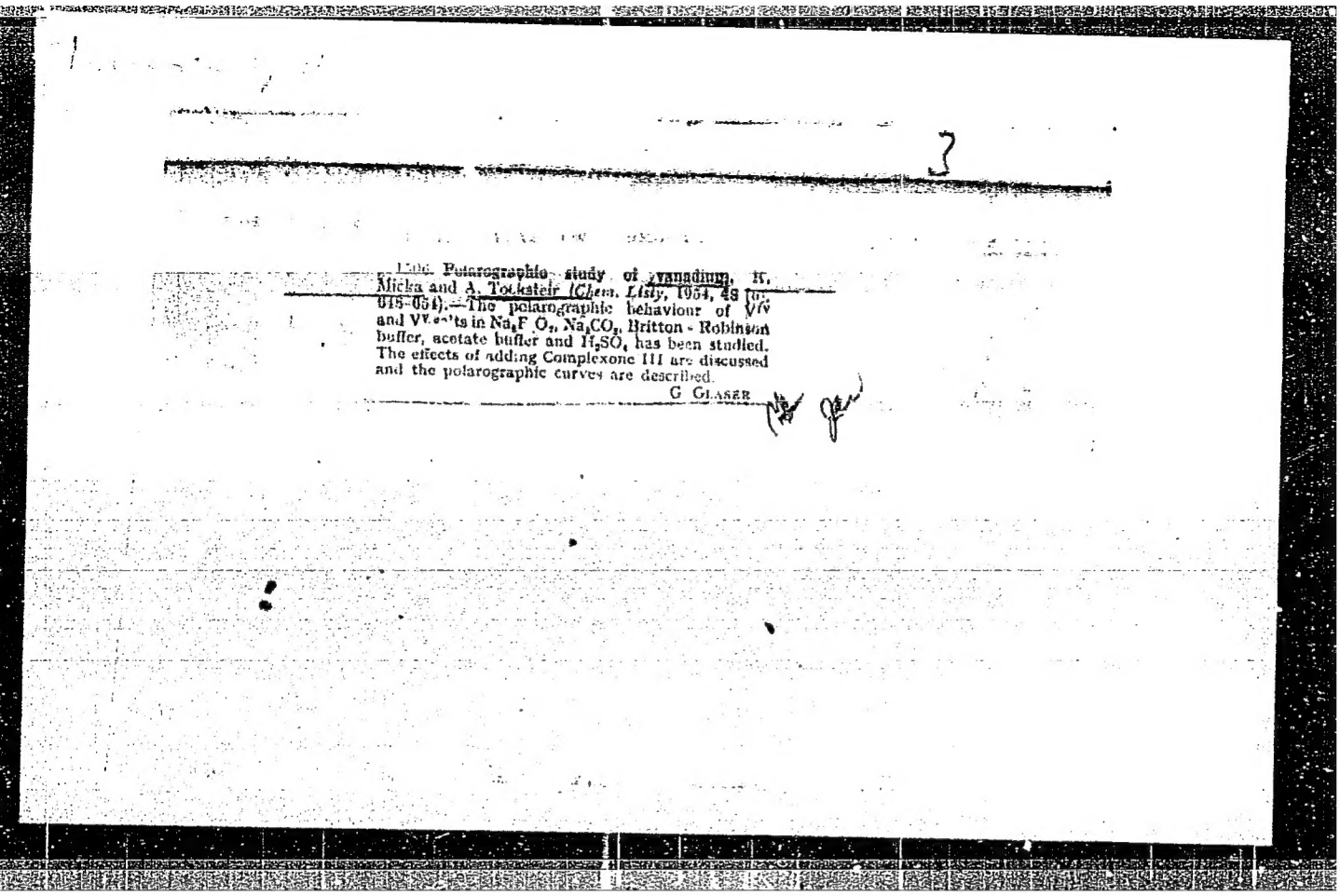
TOOKOS, I. ; LESENYEI, J.

Neutralization of acidic waste water by powdered carbonates. p. 240.

BESZAMOLO. Budapest./ Hungary. 1957 (published 1959)

Monthly List of East European Accessions, (EEAI) LC, Vol. 9, No. 1, Jan. 1960

Uncl



1106. Polarographic study of vanadium. K. Micka and A. Tocksteir (*Chem. Listy*, 1954, 48 [6], 815–854).—The polarographic behaviour of V^IV and V^V salts in $Na_2F_2O_2$, Na_2CO_3, Britton - Robinson buffer, acetate buffer and H_2SO_4 has been studied. The effects of adding Complexone III are discussed and the polarographic curves are described.

G. GLASER

TOOLES, O. M.

"A Theory of the Movement of Droplets in an Anabatic Current of Air Subsaturated or Supersaturated with Vapor and Its Possible Meteorological Applications," by B. V. Deryogin and O. M. Tooles, 1948

B-76026

TOOM, A.L.

Complexity of a scheme which consists of functional elements and accomplishes the multiplication of integers. Dokl. AN SSSR 150 no.3:496-498 My '63. (MIRA 16:6)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova. Predstavleno akademikom P.S. Novikovym.
(Linear equations) (Cybernetics)

LENTSNER, A.; TOOM, M.

Nutrient medium for lactobacilli culture. Lab. delo no.10: 616-619 '64. (MIRA 17:12)

1. Kafedra mikrobiologii Tartuskogo gosudarstvennogo universiteta.

TOOME, A.

Today and tomorrow of Soviet Estonia. Przegl techn no.45:4 11 N '62.

1. Pierwszy zastepca przewodniczacego Gosplana Estonskiej Socjalistycznej Republiki Radzieckiej.

SMUUL, Yukhan [Smuul, Juhan]; TOOM, Leon [translator]; BUZIKOSHVILI, N.I., red.; GREYMER, M.L., tekhn.red.

[Ice book; Antarctic travel diary] Ledovaia kniga; antarkticheskii putevoi dnevnik. Moskva, Sovetskii pisatel', 1959. 298 p. Translated from the Estonian. (MIRA 13:2)
(Antarctic regions)

LENTSNER, A.A.; TOOM, M.A.; MIKEL'SAAR, M.E.

Methodology of isolating lactobacilli from feces. Zhur. mikrobiol., epid. i immun. 41 no.9:146-147 S '64. (MIRA 18:4)

1. Tartuskiy gosudarstvennyy universitet.

TOOM, M.M.

Experiments in incubating eggs of the Baltic herring [with summary in English]. Trudy VNIRO 34:19-29 '58. (MIRA 11:9)

1.Estonskoye otdeleniye Vsesoyuznogo nauchno-issledovatel'skogo instituta morskogo rybnogo khozyaystva i okeanografii.
(Riga, Gulf of--Herring) (Fish culture)

TOOMING, H.

PHASE I BOOK EXPLOITATION SOV/4466

Akademiya nauk Estonskoy SSR. Institut fiziki i astronomii

Issledovaniya po fizike atmosfery, Vyp. 1 (Research on Atmospheric Physics, No. 1) Tartu, 1959. 107 p. 800 copies printed. [In Russian and English.]

Editorial Board: J. Ross (Chairman), O.Avaste, Kh. Liydemaa, and H. Mürk; Ed.: Kh. Niylisk.

PURPOSE: This publication is intended for geophysicists, meteorologists, and astronomers.

COVERAGE: This is the first issue of a new serial publication put out by the Sektor fiziki atmosfery Instituta fiziki i astronomii AN Estonskoy SSR (Sector of Atmospheric Physics of the Institute of Physics and Astronomy of the Academy of Sciences Estonskaya SSR) on research in the physics of the atmosphere. The publication is to appear at irregular intervals (1 - 2 issues per year) and will, for the most part, contain papers in actinometry. Issue 1 contains articles dealing with radiation intensity and the characteristics of atmospheric transparency, spectral reflectivity of vegetation covers, and a discussion of

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Research on Atmospheric Physics, No. 1 SOV/4466

Makhotkin's index of turbidity. No personalities are mentioned. An English summary follows each article. References accompany each article.

TABLE OF CONTENTS:

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Research on Atmospheric Physics, No. 1 SOV/4466

Tooming, H. Some Problems Concerning the Distribution of the Total Radiation in the Vegetation Cover 83

The author thanks Yu. Ross.

AVAILABLE: Library of Congress

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JA/dwm/gmp
11-9-60

TOOMING, Kh. G.

3(7) PHASE I BOOK EXPLOITATION SOV/1732

Leningrad. Glavnaya geofizicheskaya observatoriya

Metodika meteorologicheskikh nablyudeniy (Methodology of Meteorological Observations) Leningrad, Gidrometeoizdat, 1956. 153 p. (Series: Its: Trudy, vyp. 61 /123/ 1,400 copies printed.

Sponsoring Agency: USSR. Glavnoye upravleniye gidrometeorologicheskoy sluzhby

Ed. (title page): Z.I. Pivovarova, Candidate of Geographical Sciences; Ed. (inside book): Ye. I. Oksenova; Tech. Ed.: K.F. Shumikhin.

PURPOSE: This collection of articles is intended for meteorologists serving with the hydrometeorological network in the Soviet Union.

COVERAGE: The publication contains scientific articles on the methods of meteorologic observations and on the procedure of testing meteorological instruments. The possibility of reducing the errors

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and thus securing more accurate results in observations are shown by mathematical computations and graphs. The need for a universal portable instrument that would be capable of instantly recording cloud height is emphasized. The articles are accompained by maps, diagrams, tables and references.

TABLE OF CONTENTS:

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Methodology of Meteorological Observations SOV/1732

Sternzat, M.S. Errors in Measuring the Direction and the Velocity of Wind From a Ship

147

AVAILABLE: Library of Congress

MM/jmr
5-21-59

Card 4/4

TOOMING, Kh.G.; MOLDAU, Kh.A.

Tornado in Estonia. Priroda 51 no.6:102 Je '62. (MIRA 15:6)

1. Institut fiziki i astronomii AN Estonskoy SSR, Tartu.
(Estonia--Torandoes)

TOOMING, Kh. G.

Cand Phys-Math Sci - (diss) "Reflection and absorption of short-wave solar radiation on several natural surfaces." Tartu, 1961. 11 pp; (Tartu State Univ); 300 copies; free; (KL, 7-61 sup, 220)

TOOMISTE, J.

Practical observation data on raising crossbred poultry. p. 321.

GAZ, WODA I TECHNIKA SANITARNA (Stowarzyszenie Naukowo-Techniczne Inzynierow i Techników Sanitarnych, Ogrzewnictwa i Gazownictwa) Warszawa, Poland, Vol. 32, no. 6, June 1958.

Monthly list of East European Accession (EEAI) LC, Vol. 9, no. 2, Feb. 1960

Uncl.

TOOMISTE, J.

Experiences in raising the eff oroduction on the collective farm. p. 174.

SOTSIALISTLIK POLLUMAJANDUS. Tallinn, Hungary, Vol. 13, no. 4, Apr. 1958.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 4, July, 1959.
Uncl.

CASOPIS LEKARU CESKYCH Sec.11 Vol.11/1 Oto-rhino-lar. Jan 53

24. PROTOZOA IN CASES OF CHRONIC TONSILLITIS (Russian text). Toomka A. F. Leningrad. VESTN. OTO-RINO-LARING. 1957, /2 (78-83) Tables 2 Illus. 2

In a protozoological study of the tonsils surgically removed from 72 adult patients with chronic tonsillitis, amoebas (Entamoeba gingivalis Gross, 1849) were observed in 4 cases and trichomonads (Trichomonas elongata Steinberg, 1862) in 8 cases. The amoebas discovered in the tonsils differed from those discovered in the oral cavity by their larger size and the kind of nutrition. No such differences have been established for the trichomonads. Both amoebas and trichomonads were discovered in the depth of the lacunae. A histological study did not lead to the discovery of the protozoa in the tonsillar tissue. The presence of the protozoa is more characteristic in patients who had suffered from tonsillitis for longer periods of time.

(XX, 11, 7)

TOOMRE, R.

Development of agricultural sciences in Soviet Estonia.

p. 448 (Sotsialistlik Pollumajandus. Vol. 12, no. 10, Oct. 1957. Tallinn, Estonia)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2,
February 1958

TOOMRE, R.I., kand. sel'skokhozyaystvennykh nauk.

Feed supply problem in the Baltic States. Nauka i pered. op. v sel'khoz. 7 no.10:30-32 O '57. (MLRA 10:11)
(Baltic States--Feeding and feeding stuffs)

TOOMRE, R., kand. sel'skokhozyaystvennykh nauk.

Perennial cultivated pastures. Nauka i perod. op. v sel'khoz. 18 no.2:7-9 F '58. (MIRA 11:3)

(Estonia--Pastures and meadows)

TOOMARI, K. Ya.

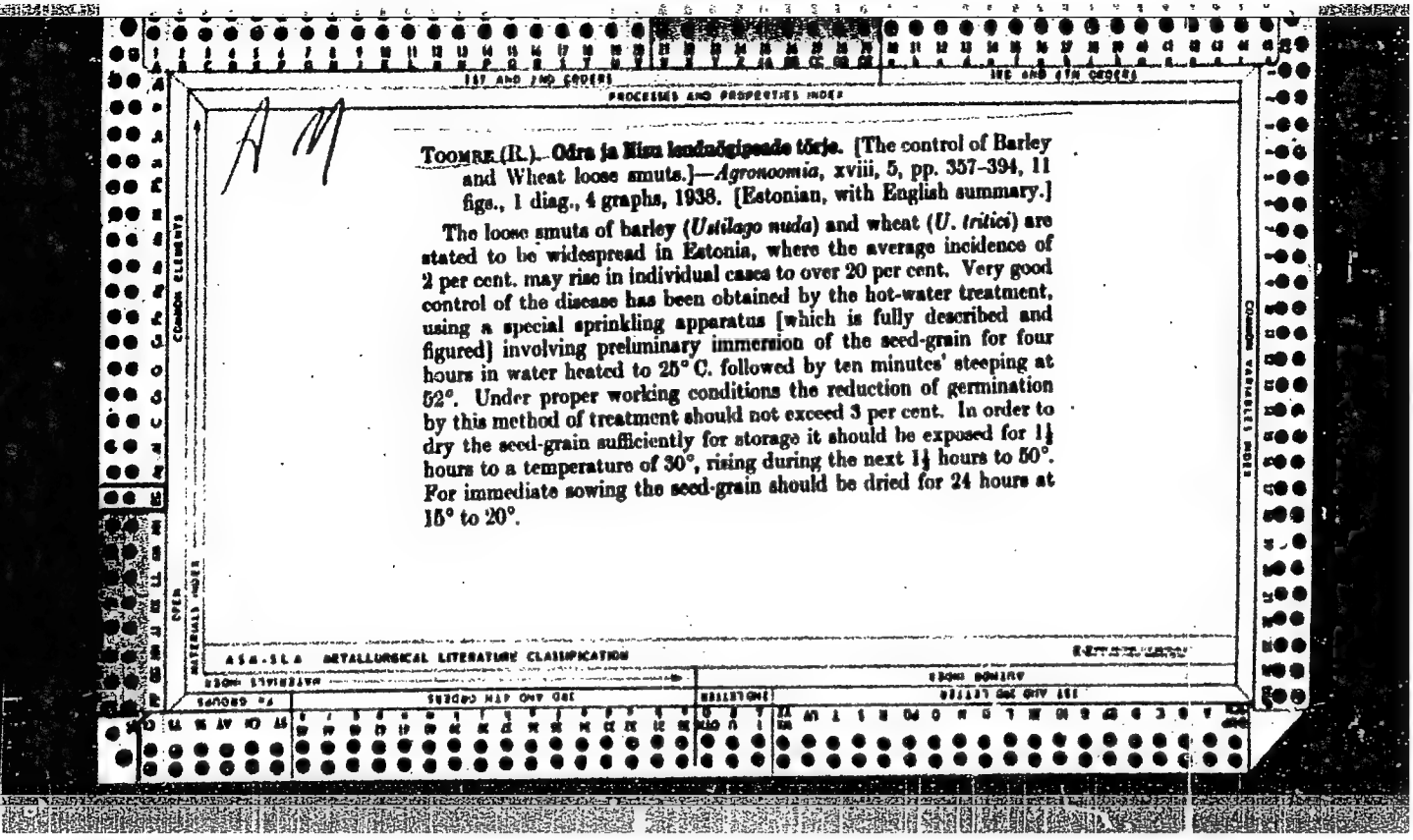
TOOMARI, K. Ya.: "Birth injury of the perineum and metods of preventing it." Acad Med Sci USSR. Joint Council of the Group of Leningrad Institutes. Leningrad, 1956
(Dissertation for the Degree of Candidate in Medical Science)

So: Knizhnaya letopis', No 19, 1956

TOOMING, Kh. G.

ROSS, Yu.K.; TOOMING, Kh.G.

Measuring radiation flow by means of the IAnishevskii's pyrgeometer (effective pyranometer). Trudy GGO no.61:92-102 '56. (MLRA 10:7)
(Pyranometer)



TOOMRE (R.). **Odra ja Kisu lendudõpsede tõrje.** [The control of Barley and Wheat loose smuts.]—*Agronoomia*, xviii, 5, pp. 357–394, 11 figs., 1 diag., 4 graphs, 1938. [Estonian, with English summary.]

The loose smuts of barley (*Ustilago nuda*) and wheat (*U. tritici*) are stated to be widespread in Estonia, where the average incidence of 2 per cent. may rise in individual cases to over 20 per cent. Very good control of the disease has been obtained by the hot-water treatment, using a special sprinkling apparatus [which is fully described and figured] involving preliminary immersion of the seed-grain for four hours in water heated to 25° C. followed by ten minutes' steeping at 52°. Under proper working conditions the reduction of germination by this method of treatment should not exceed 3 per cent. In order to dry the seed-grain sufficiently for storage it should be exposed for 1½ hours to a temperature of 30°, rising during the next 1½ hours to 50°. For immediate sowing the seed-grain should be dried for 24 hours at 15° to 20°.

TOOMRE, R.

2d All-Soviet seminar on cultivated pastures. p.435

GAZ, WODA I TECHNIKA SANITARNA (Stowarzyszenie Naukowo-Techniczne Inzynierowi I Technikow Sanitarnych Orgrzewnictwa i Garownictwa) Warszawa, Poland
Vol.13, no.9, Sept. 1958

Monthly list of East European Accessions (EEAI) LC, Vol.9, no.2, Feb. 1960

Uncl.

AAMISEPP, I.; EICHENBAUM, E.; HALLER, E.; KAARLI, K.; KIIK, H.; KIVI, V.; KOTKAS, H.; KORJUS, H.; LEIVATEGIJA, L.; LIIV, J.; LÄNTS, L.; MÄLKSOO, A.; PEDAJA, V.; POLNA, H.; RANDALU, I.; RUUGE, J.; SEKSEL, H.; TOOMRE, R.; TUPITS, H.; TUUL, S.; TÕNISSON, H.; TÄÄGER, A.; VIIRAND, M.; VAHENÕMM, K.; ARAK, A., red.

[Plant breeding] Taimekasvatus. Tallinn, Eesti Raamat, 1964. 813 p. [In Estonian] (MIRA 18:1)

TOOMRE, R.

Creation of cultivated grasslands can be speeded up. p.542

SOTSIALISTLIK POLLUMAJANDUS. Tallinn, Estonia. Vol. 14, no. 12, June 1959

Monthly List of East European Accessions (EEAI), LC. Vol. 8, No. 9, September 1959
Uncl.

TOOMRE, R.I., kand.sel'skokhoz.nauk

Ways of establishing an ever normal feed supply in the Estonian S.S.R. Zemledelie 7 no.10:53-58 O '59. (MIRA 13:1)

1. Estonskiy nauchno-issledovatel'skiy institut zemledeliya i melioratsii.
(Estonia--Pastures and meadows) (Estonia--Feeds)

TOOMRE, R.

USSR/Meadow Cultivation. L.

Abs Jour : Ref Zhur - Biol., No 21, 1958, 95890

Author : Toomre, R.
Inst : -
Title : Basic Methods for Establishing Cultivated Pastures in the Estonian SSR.

Orig Pub : Molochn. i myasnoye zhivotnovodstvo, 1957, No 9, 15-23.

Abstract : No abstract.

Card 1/1

TOOMAE, R.

Seminar for several republics on the cultivating of pastures.

p. 421 (Sotsialikstlik Pollumajandus) Vol. 12, no. 9, Sept. 1957, Tallin, Estonia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN. 1958

TOOMRE, Rikhard Iokhanovich, kand.sel'skokhoz.nauk; KATSNEL'SON, S.M., red.; ATROSHCHENKO, L.Ye., tekhn.red.

[Perennial cultivated pastures; based on data of the Estonian S.S.R.] Dolgoletnie kul'turnye pastbishcha (po materialam Estonskoi SSR). Moskva, Izd-vo "Znanie," 1959. 31 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser.5, Sel'skoe khoziaistvo, no.10)
(MIRA 12:8)

(Estonia--Pastures and meadows)

TOOMRE, R.I.

"Changes in the Soil Fertility of Improved Long-term Pastures and Their Effect on Pasture Yield."

(Estonian SSR.)
report to be presented at the 8th Intl Grassland Congress, Reading, England, 11-21 Jul '60

TOOMSALU, A. ; JARVEKULG, L.

Cytohistological peculiarities of the germination and differentiation of callus cells. p. 222.

TOIMETISED. BIOLOOGILINE SEERIA. IZVESTIIA. SERIIA BIOLOGICHESKAIA. (Eesti NSV Teaduste Akadeemia) Tallinn, Estonia. Vol. 8, no. 3, 1959.

Monthly list of East European Accessions (EEIA) Vol. 9, no. 1, Jan 1960.

Uncl.

TOOMSALU, A. YU.

TOOMSALU, A. YU.: "The regenerative and reproductive capacities of the hypocotyls of certain plants and their biological significance." Tartu State U. Tartu, 1956.
(Dissertation for the degree of Candidate of Biological Sciences.)

SO: Knizhnaya Letopis', No 36, 1956, Moscow.

KUMARI, E., glav. red.; EILART, J., red.; HANG, E., red.; NIINE,A., red.; VAREP, E., red.; TOOMSALU, E., red.

[Protection and planning of landscapes in the Estonian S.S.R.; reports] Maastike kaitsest ja planeerimisest Eesti NSV-s ; ettekanded. Tartu, Eesti NSV Teaduste Akadeemia, 1964. 151 p. [In Estonian] (MIRA 18:7)

1. Nõupidamine maastike kaitse ja planeerimise küsimistes. Tallinn, 1961.

TOOMTALU, H.

Drainage pipes out of glass. p. 189.

SOTSIALISTLIK POLLUMAJANDUS. Tallinn, Hungary. Vol. 13, no. 4, Apr. 1958.

Monthly List of East European Accessions (EEAI), LC, Vol. 8 No. 4, July 1959.
Uncl.

ALT, E.; JAKOOBI, E.; ELGAS, J., retsenzent; TOONE, A., retsenzent; ABO, L., red.; SEPP, A., tekhn. red.

[Manual for the repairing of radios] Raadiokorrastaja kasiraamat. Tallinn, Eesti Riiklik Kirjastus, 1960. 339 p. [In Estonian] (MIRA 15:1)

(Radio—Repairing)

TOONITSKIY, N.N.

USSR .

JOURNAL ARTICLE TRANSLATION

Transl. No. & Country	Translations Issued By S. M. R. E., Ministry of Fuel and Power	Author
3783 OT/1190 U.S.S.R.	Tribo-Electric Dust Charges Zh. tekh.Fiz.,10(20),1723-1726, 1939	N. N. Toonitsky M. V. Tikhomirov I. V. Petrianov

Source: Index Aeronauticus, Vol. 11, No. 6, p 133, June 1955

TOOS, Istvanne

Packings as means of safety engineering.Pt.2. Munkavedelem 9 no.7/9:10-16 '63.

1. Szakszervezetek Orszagos Tanacsa Munkavedelmi Tudomanyos Kutato Intezete.

TOOS, Istvanne

Packings as means of safety engineering. Pt. 1. Munkavedelem 9 no.4/6:1-7 '63.

1. Szakszervezetek Orszagos Tanacsa Munkavedelmi Tudomanyos Kutato Intezete.

TOOS, Istvan

Oil industry of Rumania. Veszprem vegyip egy kozl 4 no.4:409-410 '60

1. Csepeli Koolajipari Vallalat, Budapest.

TOOS, Istvanne

Packings as means of safety engineering. Pt.3. Munkavedelem 10 no.1/3:26-31 '64.

1. Scientific Research Institute of Labor Protection, Central Council of Hungarian Trade Unions, Budapest.

VOOTH, Jozsef, dr.; FURST, Ferenc, dr.

Gastropin therapy of urologic disorders. Orv.hetil. 101 no.36: 1280-1281 4 S '60.

1. Budapesti Orvostudomanyi Egyetem, Urologiai Klinika
(ATROPINE rel cpds)
(UROLOGY ther)

TOOTSEN, U.

AGRICULTURE

Periodical: SOTSIALISTLIK POLLUMAJANDUS. Vol. 14, no. 1, Jan 1959

TOOTSEN, U. The suffocation of fishes during the winter p. 14.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 5, May 1959, Unclass.

TOOTSEN, U.

AGRICULTURE

Periodical: SOTSIALSTLIK POLLUMAJANDUS Vol. 14, no. 3, Feb. 1959

TOOTSEN, U. The tench (Tinca tinca) is a suitable fish for small bodies of water. p. 110.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 5, May 1959, Unclass.

TOOTSEN, U.

Possibilities of a fish culture on collective and state farms. p. 254.

SOTSIALISTLIK POLLUMAJANDUS. (Pollumajanduse Ministeerium)
Tallinn, Estonia. Vol. 13, no. 6, June 1958.

Monthly list of East European Accessions (EEAI) Vol. 9, no. 1, Jan. 1960.

Uncl.

TOOTSEN, U.; AVARSOO, H., red.; LAUL, U., tekhn. red.

[Utilization of inland waters] Siseveekogude majandamisest. Tallinn, Eesti Riiklik Kirjastus, 1960. 146 p. [In Estonian]
(MIRA 15:1)

(Estonia—Fish culture)

POPESCU, Mircea, ing.; SANDRU, Petre; TOPA, Aurelia

Method for determining the source of macroscopic exogenous nonmetallic inclusions in steel. Metalurgia constr mas 14 no.9:795-799 S '62.

1. Combinatul siderurgic-Hunedoara (for Popescu).
2. Institutul de fizica atomica (for Sandru, Topa).

TOPA, E.

RUMANIA/Cultivated Plants - Fodders.

M-4

Abs Jour : Ref Zhur - Biol., No 20, 1958, 91696

Author : Resmerita, I., Topa, E., Florescu, M.

Inst : Cluj Affiliate of the AS RPR

Title : Biological and Agrotechnical Properties of Tetragonolobus purpureus Moench in the Rumanian People's Republic.

Orig Pub : Studii si cercetari agron. Acad. RPR Fil. Cluj, 1956, 7, No 1-4, 15-40.

Abstract : This study gives the results of investigations in the systematics, ecology, biochemistry, agricultural technique and economic significance of the Tetragonolobus which has been known to agriculture since 1600. This annual leguminous plant suddeeds well under various ecological conditions up to 1350 meters above sea level, on a variety of soils. According to the 1953-1955 data of the Cluj Experimental

Card 1/2

BURDUJA, Constantin; DOBRESCU, Constantin; TOPA, Emilian

"Treatise of systematic botany" by Marius Chadefaud, Louis Emberger. Vols.1-2. Reviewed by Constantin Burduja, Constantin Dobrescu, Emilian Topa. Anal St Jassy II 10:199-200 '64.

TOPA, E. (Cluj)

"Flora of the U.S.S.R." Vol. 1. Reviewed by E. Topa. Analele biol 16 no.4:155-156 Jl-Ag '62.

TOPA, Fl., ing.

Modernizing the Brasov-Sighisoara highway. Constr Buc 16 no.730:1 4 Ja'64.

1. Din Intreprinderea de Constructii pentru transporturi, Bucuresti.

TOPA, Filip, ing.

Sand stabilized with cement for road foundations. Constr Buc 15 no.721:1 N '63.

1. Intreprinderea de constructii pentru transporturi, Bucuresti.

TOPA, I.

Distr: 4E3c 2 cys 19

Isomeric transition in mercury-199. R. Sosnowski, S. Szerliński, I. Topa, and J. Żylicz (Inst. Badań Jadrowych, Warsaw). *Polish Acad. Sci., Inst. Nuclear Research, Rept.* No. 89/I-A, 9 pp.(1959)(in English).—The transition from the $i_{13/2}$ to the $f_{5/2}$ level and the size of the *E5* contribution were studied in the internal conversion electron spectra obtained with Hg^{199} sources 1.2 and 6 mg./sq. cm. thick for 2 hrs. within 2660–1550 gauss.-cm. The $K:L:M + N$ ratio of 1:0.57 ± 0.09:0.12 ± 0.07 permitted calcn. of the transition energy as 371.1 ± 3.5 e.kv. The *E5* contribution to the basic *M4* transition did not exceed 11%.

A. Bastrukski

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2

P/046/60/005/010/002/009
D240/D302

26.2263

27154

AUTHORS: Dąbek, Wacław, Kazimierski, Adam, and Topa, Jerzy

TITLE: Gas ionization neutron detectors

PERIODICAL: Nukleonika, v. 5, no. 10, 1960, 597-609

TEXT: A number of gas ionization neutron detectors have been developed at the Institute of Nuclear Research, Warszawa, for reactor instrumentation, neutron flux distribution measurements and for experimental purposes. Detectors for reactor instrumentation and control should not change in characteristics during long periods of operation, should discriminate clearly between neutron and γ radiation and should be linear over a wide range of neutron flux. Three types of detectors have been developed for reactor control which fulfil the above requirements. The BF_3 proportional counter and pulse fission chamber serve during the start up of the reactor. The BF_3 proportional counters are made from oxygen free copper as the cylindrical cathode (diameter 25mm) with an axial anode made of tungsten wire. The counters are filled with BF_3 vapor. Several designs of pulse

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Gas ionization...

fission chamber have been developed. A typical one consists of an outer cylindrical aluminum envelope (50mm diameter, length 450mm) containing four coaxial cylinders. Two of these act as collecting electrodes and are earthed. The chamber is filled with an inert gas at 6 atm. and operates at 600V with a capacity of 350 pF. The counting rate is linear with a neutron flux of up to 2×10^5 counts/sec. This chamber is intended for use in the WWR-S reactor. When the reactor is at or close to full power, control is achieved using current ionization chambers. These have two coaxial cylindrical volumes, one sensitive to neutrons and γ radiation and the other to γ radiation only. A positive voltage applied to the central electrode compensates for the γ background current. The ionization current is linear with the reactor power curve up to 50 kW and has a negative deviation of only 7.2 percent at 100 kW. The current ionization chambers are used over the full range of the reactor from shut down to full power (200 kW). The requirements for detectors for neutron flux distribution measurements are different. For flux measurement, a small instrument with low non-active volume made from materials of small neutron capture cross sections is required. Two types of

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detectors have been developed at the institute. BF_3 proportional counters are used at low neutron flux and γ background and are applied in the experimental graphite assembly and in zero power reactors. The design is similar to that of the detector for reactor control, but this instrument is smaller (diameter 8mm; wall thickness 0.5mm). At higher neutron flux, miniature pulse fission chambers are used. The cylindrical chamber is constructed of aluminum, containing a central anode which is surrounded by a cylindrical cathode coated with uranium. The chamber is filled with an inert gas at 4 atm. pressure. There are 16 figures, 2 tables and 10 references: 3 Soviet-bloc and 7 non-Soviet-bloc. The 4 most recent references to English-language publications read as follows: J. L. Ayve: Nuclear Power, December 1959; J. M. McKenzie: Nucleonics, January 1959; R. B. Mendell, S. A. Korff: Rev. Sci. Instrum. 30, 442 (1959); W. Abson, P. G. Salmon, S. Pyraha: Proc. IEE 105B, 357 (1958).

ASSOCIATION: Institute of Nuclear Research, Warszawa

SUBMITTED: July, 1960

Card 3/3

ACC NR: AP7002754 SOURCE CODE: PO/0046/66/011/005/0349/0358

AUTHOR: Jablonska, Jadwiga--Yablon'ska, Ya.; Janikowski, Andrzej--Yanikovski, A.; Topa, Jerzy--Topa, Yu.

ORG: Department of Reactor Physics, Institute of Nuclear Research, Swierk

TITLE: Progress in reactor detectors design and construction carried out in the years 1963-1965 [This paper was presented at the Reactor Physics and Engineering Conference held in Budapest from 15 to 20 November 1965.]

SOURCE: Nukleonika, v. 11, no. 5, 1966, 349-358

TOPIC TAGS: ceramic to metal seal, ionization chamber, radiation detector/RWKJ-8 ionization chamber, AKJ-4 boron coated chamber, AKJ-3 fission chamber, RJ-300 fission chamber, 9R-8 small size chamber, RR-100 start up chamber, RM-70 neutron beam monitoring chamber, ThR-8 fission chamber, ThR-20 fission chamber, ThR-60 fission chamber

ABSTRACT: A significant progress in technology and construction of various reactor detector types was performed in comparison to the status described in Prague in the year 1963. The main advances are: new isolating materials, particularly ceramic-to-metal seals and high alumina ceramic elements, hydrogen filling for boron chambers and new chamber assembling methods. The new detectors designed are the following: neutron sensitive gamma compensated ionization chamber RWKJ-8 mounted in the rigid extension PK-58; uncompensated: boron coated chambers AKJ-4 and high sensitive AKJ-3 (suitable for reactor noise measurements) and uranium coated RJ-300; fission chambers: small size chamber 9R-8, start-up chamber RR-100, neutron beam monitoring chamber RM-70 and threshold thorium coated fission chambers ThR-8, ThR-20, and ThR-60. The construction of the detectors is shown and the technical data are given. Finally the future work is briefly mentioned. Orig. art. has: 11 figures and 2 tables. [Orig. art. in Eng.] [NA]

SUB CODE: 18 / SUBM DATE: 15Sep65 / ORIG REF: 002

Card 1/1 0925 1628

BIEGUSZEWSKI, Zygmunt; DABEK, Waclaw; JABLONSKA, Jadwiga; JANIKOWSKI, Andrzej; TOPA, Jerzy

Technological problems of nuclear radiation detectors. Przegl elektroniki 4 no.7:372-383 Jl '63.

1. Zaklad Inzynierii Reaktorowej, Instytut Badan Jadrowych, Warszawa.

BOUZYK, Jacek; DABEK, Waclaw; DABROWSKI, Cyryl; JOZEFOWICZ, Krystyna; KOZMINSKI, Jerzy; SUWALSKI, Witold; TOPA, Jerzy; WEISS, Zbigniew

Experimental analysis of the use of the "Ewa" reactor to some pile-oscillator measurements. Nukleonika 6 no.11:717-734 '61.

1. Polish Academy of Sciences, Institute of Nuclear Research, Warszawa, Reactor Engineering Department.

DABEK, Waclaw; JABLONSKA, Jadwiga; JANIKOWSKI, Andrzej; TOPA, Jerzy

The neutron sensitive ionization chamber AKJ-150/0.8 type.
Przegl elektroniki 4 no.7:388-389 Jl '63.

1. Zaklad Inzynierii Reaktorowej, Instytut Badan Jadrowych, Warszawa.

DABEK, Waclaw; JABLONSKA, Jadwiga; JANIKOWSKI, Andrzej; TOPA, Jerzy

Ionization chambers for measurement of neutron flux distribution by the activation method. Przegl elektroniki 4 no.7: 403-408 Jl '63.

1. Zaklad Inzynierii Reaktorowej, Instytut Badan Jadrowych, Warszawa.

DABEK, Waclaw; JABLONSKA, Jadwiga; JANIKOWSKI, Andrzej; TOPA, Jerzy

The RAKJ-5 type γ - compensated neutron sensitive ionization chamber. Przegl elektroniki 4 no.7:390-394 Jl '63.

1. Zaklad Inzynierii Reaktorowej, Instytut Badan Jadrowych, Warszawa.

DABEK, Waclaw; JABLONSKA, Jadwiga; JANIKOWSKI, Andrzej; SZCZECHLA, Bronislaw; TOPA, Jerzy

Installed γ - radiation monitor with D.C. pressure KPDG-1/10 type ionization chamber. Przegl elektroniki 4 no.7:409-413 Jl '63.

1. Zaklad Inzynierii Reaktorowej, Instytut Badan Jadrowych, Warszawa.

DABEK, Waclaw; KAZIMIERSKI, Adam; TOPA, Jerzy

Gas ionization neutron detectors. Nukleonika 5 no.10:597-609 '60.

1. Institute of Nuclear Research, Warszawa

TOPA, JERZY

4

P/046/61/006/011/003/004/
D216/D304

21.5210

AUTHORS: Boušyk Jacek, Dąbek Wacław, Dąbrowski Cyryl, Jósefowicz Krystyna, Kośmiński Jerzy, Suwalski Witold, Topa Jerzy, and Weiss Zbigniew

TITLE: Experimental analysis of the use of the "EWA" reactor for some pile-oscillator measurements

PERIODICAL: Nukleonika, v. 6, no. 11, 1961, 717 - 734

TEXT: This paper investigates the sensitivity of moderator purity determinations in the WWR-S "EWA" reactor of the Polish Academy of Sciences at Swierk using various methods. A priliminary report of the work has already been published (Ref. 6: W. Dąbek Nukleonika, 5, 415, 1960). The periodic change in neutron density caused by harmonic oscillation of an absorbing sample causing small reactivity changes may be written

$$\frac{n(t) - n_{av}}{n_{av}} = \sum_{m=1}^{\infty} G^{(m)} e^{j(m\omega t + \varphi^{(m)})} + \sum_{m=1}^{+} L^{(m)} e^{j(m\omega t + \alpha)} -$$

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Experimental analysis of ...

$$= \sum_{m=1}^{\infty} R^{(m)} e^{j(m\omega t + \theta^{(m)})} \qquad (2)$$

where $n(t)$ and n_{av} are the time dependent and average neutron densities, $G^{(m)}$ $L^{(m)}$ $R^{(m)}$ are the relative amplitudes of the m-th harmonics of the global (general reactor), local and resultant signals, $\varphi^{(m)}$, α and $\theta^{(m)}$ are the phase angles of the global, local and resultant signals, and the period of oscillation of the sample $T \sim 2\pi/\omega$. Fundamental harmonics only are considered, the other being eliminated by the apparatus or by computation. G and L depend upon the absorber content of the sample, and the global and local signal sensitivities g and l may be expressed

$$g = \frac{1}{x} \cdot \frac{G_x - G_o}{G_o} \qquad (3a)$$

$$l = \frac{1}{x} \cdot \frac{L_x - L_o}{L_o} \qquad (3b)$$

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Experimental analysis of ...

where x = equivalent number of boron nuclei per million moderator nuclei, and the subscripts x and o refer to signals for samples with and without absorbing impurities respectively. Similarly, the sensitivity of the resultant signal, , may be defined in terms of the phase angle

$$\vartheta = \frac{1}{x} (\theta_x - \theta_o) \qquad (8c)$$

Measurements were made at 300 W reactor power with as low xenon poisoning as possible. The sample was oscillated in the core in an empty fuel channel with one detector in an adjacent fuel channel and one in the thermal column (detecting the resultant and global signals respectively). For reactor stability, the cooling system is not operated. Samples were made of 200 - 250 ccs. of moderator with varying contents of boric acid (100-1000 ppm of boron), and were contained in aluminum or plexiglass. The large amounts of poison were necessary due to the low sensitivities of signals and apparatus. The detectors were differential ionization chambers, used with mirror galvanometers, electrometric dc amplifiers with 100 % feedback and a constant current compensating circuit. 1. Static method: Eq. (8a)

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Experimental analysis of ...

may be also expressed in terms of the fundamental harmonics of the k_{eff} change for samples with and without impurities, and these may be computed from statically measured characteristics of the change in k_{eff} obtained during the sample oscillation. Simultaneously, the adjacent detector determines the characteristics of the local change in neutron density and 1 may be found from Eq. (8b). Finally, ϑ may be obtained from Eq. (8c) by

$$\vartheta = \left.\frac{d\Theta}{dx}\right|_{x=0} = \mp (g+1)\ \frac{\sin\varphi}{\frac{1+a^2}{a} \mp 2\cos\varphi} \qquad (10)$$

where $a = L_o/G_o$ and the upper and lower signs refer to $\alpha = 0$ and π (in-phase and counter-phase oscillations) respectively. φ and the relation between G and the change in k_{eff} may be computed or determined experimentally. The sample was positioned at the required point, and the reactor was balanced by a fine control rod which gave the appropriate value of k_{eff} 2. Kinetic method: Global and resultant signals are recorded on oscillograms during oscillations of the sample. Parasitic phase shifts σ_G and σ_R

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Experimental analysis of ...

of the global and resultant signals occur, and are eliminated by performing two oscillations, one with $\alpha = 0$ and one with $\alpha = \pi$, of the same sample. Since the parasitic effects are the same for both oscillations, they may be removed by combining the observations. φ is determined from this and hence l and ϑ are computed. The analysis becomes even simpler for small φ and $(L/G)\alpha = \pi > 2$. The sample was mechanically oscillated with T variable from 1 - 22 seconds and amplitude from 50 - 430 mms. The reactor was balanced before and during the oscillations and once the oscillations were constant, a set of about 10 was recorded on oscillograms. At least 5 periods of the R and G signals were harmonically analyzed with accuracy up to the third harmonic. For measurements in the core with graphite samples, the signal sensitivities are, to an accuracy of 20%, - g and l both ~ 0.8 %o/ppm, and $\vartheta \sim 0.3$ °/ppm - all for optimum experimental conditions. These are lower by two orders of magnitude than those obtainable in thermal reactors, and similar results are found for other moderators. They are due to the high contribution of the slowing-down process to G and L, in comparison with which the absorption contribution is hardly observed. The self-shielding effect of boron is a factor 0.5 for samples containing 500-

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Experimental analysis of ...

-1000 ppm of boron. Measurements in a horizontal channel in the water reflector gave slightly lower sensitivities, but were not pursued due to experimental difficulties and unpromising results. Static method measurements in the horizontal thermal column channel gave promising results for 1. The results indicate a considerable increase in the effective delayed neutron fraction in comparison with the data of Keepin, Wimett and Zeigler (Ref. 7: Phys. Rev., 107,1044, 1957). Preliminary estimates give this as 0.0081 ± 0.0009, and the mean prompt neutron lifetime as 100 ± 30 sec. The static and kinetic methods give consistent sensitivities. The authors acknowledge W. Frankowski, Head of Reactor Engineering Division IBJ, P. Szulc and L. Labno, in charge of teams of Reactor Operation Division IBJ, Dobroski, Kulman and Kwiatek for cooperation in reactor measurements, Post for elaborating the oscillator mechanical drive, Miss Brozyna and Miss Maniecka for scanning the oscillograms, and Mrs. Sawicka, leader of the computer team from the Applied Mathematics Division IBJ. There are 8 figures and 8 references: 5 Soviet-bloc and 3 non-Soviet-bloc. The references to the English-language publications read as follows: D. Breton, First Geneva Conferences Paper P/356, 1955; G.R. Keepin, T.F. Wimett, R.K. Zeigler, Phys, Rev., 107, 1044, 1957

Card 6/7

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30581
P/046/61/006/011/003/004
D216/D304

Experimental analysis of ...

ASSOCIATION: Polish Academy of Sciences. Institute of Nuclear Research, Warsaw. Reactor Engineering Department

SUBMITTED: July, 1961

Card 7/7

4

TOPA, Jerzy

POLAND

BIEGUSZEWSKI, Zygmunt; DABEK, Waclaw; JABLONSKA, Jadwiga; JANIKOWSKI, Andrzej; TOPA, Jerzy

Department of Reactor Engineering, Nuclear Research Institute (Instytut Badan Jadrowych Zaklad Inzynierii Reaktorowej) (all)

Warsaw, Przerlad elektroniki, No 7, July 63, pp 372-83.

"Technological Problems of Nuclear Radiation Detectors Used in Reactor Technique".

5

TOPA, Jerzy

POLAND

DABEK, Waclaw; JABLONSKA, Jadwiga; JANIKOWSKI, Andrzej; TOPA, Jerzy

Department of Reactor Engineering, Nuclear Research Institute (Instytut Badan Jadrowych Zaklad Inzynierii Reaktorowej) (all)

Warsaw, Przeglad elektroniki, No 7, July 63, pp 384-87.

"Testing Methods of Nuclear Radiation Detectors Used in the Reactor Technique".

4

TOPA, Jerzy

POLAND

DABEK, Waclaw; JABLONSKA, Jadwiga; JANIKOWSKI, Andrzej; TOPA, Jerzy

Department of Reactor Engineering, Nuclear Research Institute (Instytut Badan Jadrowych Zaklad Inzynierii Reaktorowej) (all)

Warsaw, Przeglad elektroniki, No 7, July 63, pp 388-89.

"Neutron Semsitive Ionization Chamber AKJ-150/0.8 Type".

4

TOPA, Jerzy

POLAND

DABEK, Waclaw; JABLONSKA, Jadwiga; JANIKOWSKI, Andrzej; TOPA, Jerzy

Department of Reactor Engineering, Nuclear Research Institute (Instytut Badan Jadrowych Zaklad Inzynierii Reaktorowej) (all)

Warsaw, Przeglad elektroniki, No 7, July 63, pp 390-94.

"Compensated Neutron Sensitive Ionization Chamber RAKJ-5 Type".

4

TOPA, Jerzy

POLAND

DABEK, Waclaw; JABLONSKA, Jadwiga; JANIKOWSKI, Andrzej, TOPA, Jerzy

Department of Reactor Engineering, Nuclear Research Institute (Instytut Badan Jadrowych Zaklad Inzynierii Reaktorowej) (all)

Warsaw, Przeglad elektroniki, No 7, July 63, pp 394-97.

"Reactor Start-up Fission Chambers".

4

TOPA, Jerzy

POLAND

DABEK, Waclaw; JABLONSKA, Jadwiga; JANIKOWSKI, Andrzej; TOPA, Jerzy

Department of Reactor Engineering, Nuclear Research Institute (Instytut Badan Jadrowych Zaklad Inzynierii Reaktorowej) (all)

Warsaw, Przeglad elektroniki, No 7, July 63, pp 397-402.

"Nuclear Radiation Defectors Used in Reactor Physics Research".

4

TOPA, Jerzy

POLAND

DABEK, Waclaw; JABLONSKA, Jadwiga; JANIKOWSKI, Andrzej; TOPA, Jerzy

Department of Reactor Engineering, Nuclear Research Institute (Instytut Badan Jadrowych Zaklad Inzynierii Reaktorowej) (all)

Warsaw, Przeglad elektroniki, No 7, July 63, pp 403-08.

"Ionization Chambers for Activation Method Neutron Flux Distribution Measurements".

TOPA, Jerzy

POLAND

DABEK, Waclaw; JABLONSKA, Jadwiga; JANIKOWSKI, Andrzej; SZCZECHLA, Bronislaw; TOPA, Jerzy

Department of Reactor Engineering, Nuclear Research Institute (Instytut Badan Jadrowych Zaklad Inzynierii Reaktorowej) (all)

Warsaw, Przeglad elektroniki, No 7, July 63, pp 409-13.

"Installed γ-radiation Monitor with DC Pressure Ionization Chamber, KPDG-1/10 Type".

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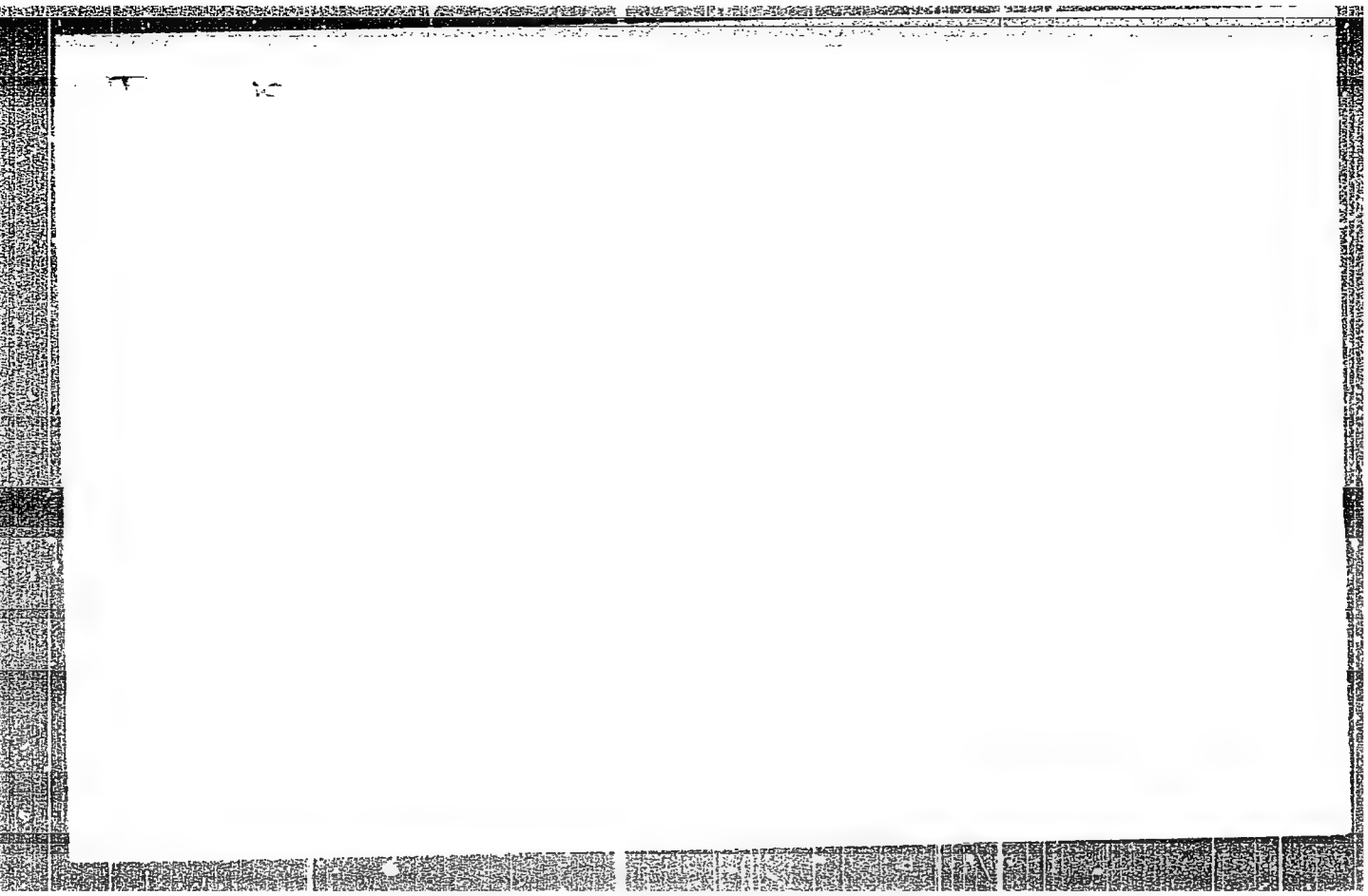

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J-4

POLAND/Acoustics - Ultrasonics

Abs Jour : Ref Zhur - Fizika, No 4, 1959, No 6588

Author : Synowiedzki Z., Topa M., Boldok Cz., Jankowska J.
Inst : -
Title : The Application of Ultrasonics to the Biological Research on Obtaining Highly Effective Strains for the Antibiotics Production

Orig Pub : Proc. II conf. ultrason., 1956. Warszawa, PWN, 1957, 219-222

Abstract : Experiments on the effective ultrasonics on microorganisms have shown that this action is not limited only to destructive effects, but also causes intracellular changes, connected with the physiology and morphology of the microorganisms. An investigation was made of the effects of ultrasonics on streptomyces grisens spores for the production of stroptomycin. The action was realized in an equeous medium with variation in the irradiation parameters, after which the spores were grown on a solid medium, parallel with the unsounded microorganisms. The time of irradiation was 5, 60, 300, 480 and 600 sec.

Card : 1/2

J-4

POLAND/Acoustics - Ultrasonics

Abs Jour : Ref Zhur - Fizika, No 4, 1959, No 6589

Author : Topa Mieczyslaw, Piaskowski Stanislaw
Inst : Institute of Pharmacy, Poland
Title : Extraction of Medicinal Plants by Means of Ultrasonics

Orig Pub : Proc. II conf. ultrason., 1956, Warszawa, PWN, 1957, 237-240

Abstract : Experiments were performed on the extraction of medicinal substances by acoustic methods. The best conditions for extraction were obtained when sounding a corresponding semi-finished material for 2.5 hours at a frequency of 370-500 kc and a temperature of 25-30°. The role of theultrasonics reduces essentially to accerleration of the diffusion processes; simultaneously it disperses the colloidal particles, suspended in the solution, and this increases considerably the quality of the obtained product. The ultrasonic method was verified in the manufacture of tannin and of essences of lemon, rose, and vanilla. It is noted that the most important quality of the acoustic extraction is the possibility

Card : 1/2

POLAND/Acoustics - Ultrasonics J-4

Abs Jour : Ref Zhur - Fizika, No 4, 1959, No 6589

of carrying out the process at low temperature. -- Yu Ya. Borisov

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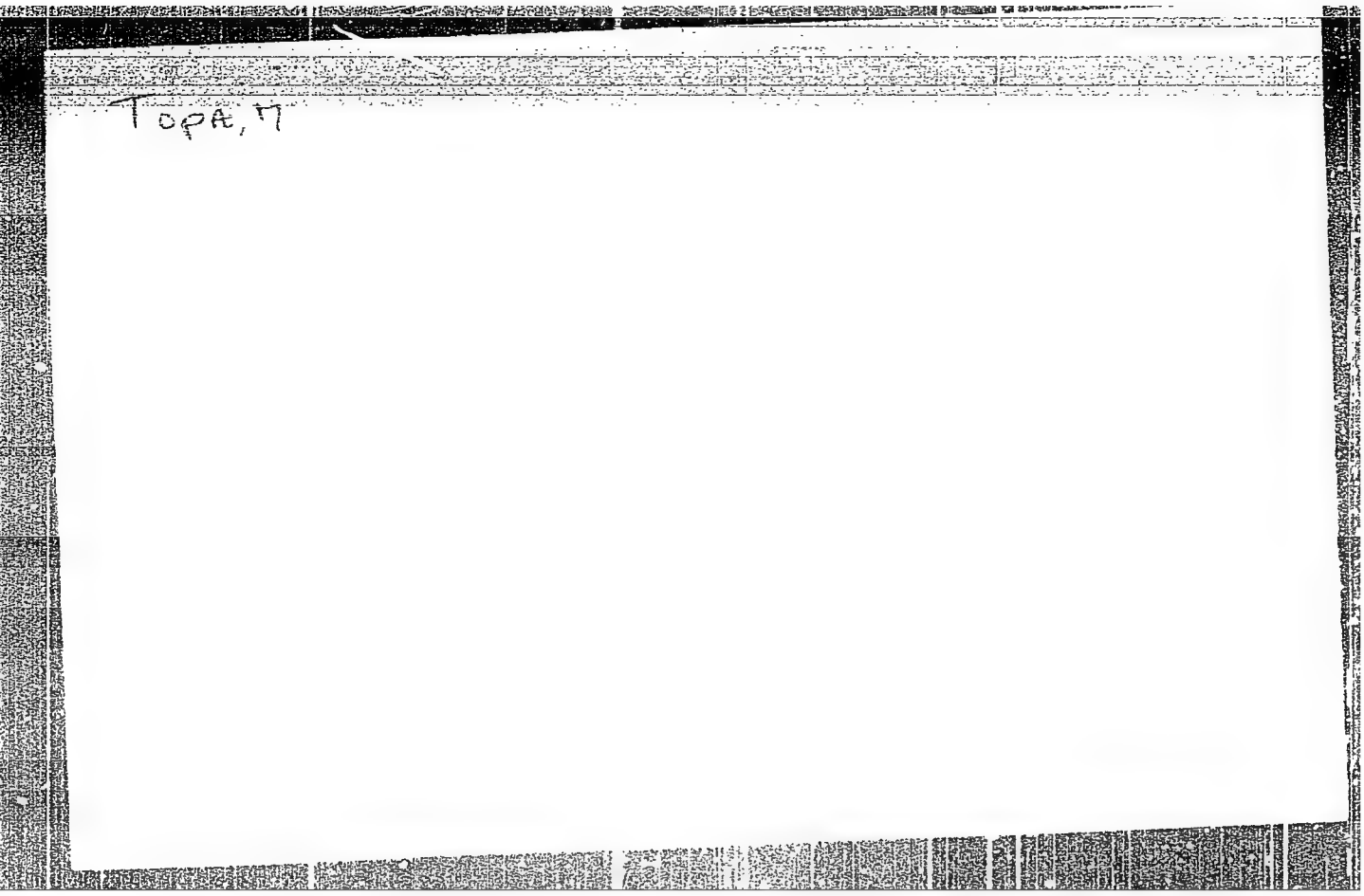

II-26

80048

COUNTRY : Poland
CATEGORY :

ABS. JOUR. : RZKhim., No. 22 1959 No.

AUTHOR : Topa, M. and Topowa, K.
INST. : Not given
TITLE : On the Catalytic Preparation of d-Sorbitol in an Ultrasonic Field

ORIG. PUB. : Przemysl Chem, 37, no 11, 703-705 (1958)

ABSTRACT : The authors discuss the catalytic method for the preparation of d-sorbitol in an ultrasonic field. A brief explanation of the destructive hydrogenation of the glucoses taking place during this process is given. The chemical and physical processes taking place during the application of similar catalytic methods in the preparation of other products are discussed. A series of experiments on the destructive hydrogenation of glucoses with different catalysts and with different

CARD: 1/2

TOPA, Mieczyslaw

Possibilities for the application of ultrasonic teeth-generators in the chemical industries. Przem chem 39 no.8:438-439 Ag '60.

TOPA, Mieczyslaw; TOPOWA, Karolina

Influence of ultrasonic waves on the speed of mutarotation of sugars. Rocz chemii 33 no.6:1493-1495 '59. (EEAI 9:9)

1. Pracownia Stosowania Ultradzwiekow Instytutu Farmaceutycznego, Warszawa.
(Ultrasonics) (Sugars)

24.6200
~~21(1)~~

67357
POL/45-18-6-3/5

AUTHORS: Sosnowski, R., Sterliński, S., Topa, J., Żylicz, J.

TITLE: Isomeric Transition in Hg^{199}

PERIODICAL: Acta Physica Polonica, 1959, Vol 18, Nr 6, pp 573-580 (Poland)

ABSTRACT: It was the aim of the present paper to investigate the spectrum of internal conversion electrons for the isomeric transition in Hg^{199} from the $i_{13/2}$ to the $f_{5/2}$-level. This 370-kev transition was investigated under conditions, which permitted measurement of the ratio K/L and to estimate the E5 contribution. L.A.Sliv and A.M.Band had estimated the E5 admixture to 90%. Preparation of the Hg^{199} source is briefly described and shown in figure 1. For measurement of the internal conversion electron spectra, a magnetic spectrometer with a thick lens was used. A G-M counter of the BAT-10 type with a mica window (1.3 mg/cm^2) served as detector. The spectrometer had a resolution of 3.3%, the counting background did not exceed 3 counts/min; the electron absorption in the window was negligibly small. Measuring results are shown in several

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Isomeric Transition in Hg^{199}

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POL/45-18-6-3/5

diagrams. They show good agreement with those calculated theoretically for M4 transition in consideration of the finite nuclear dimensions and nuclear field shielding by the electron shell. The authors obtained: K:L(M+N) = 1:(0.57±0.09): :(0.12±0.07). The mixture ratio of M4 to E5 is shown in figure 7. The maximum E5 admixture is found not to exceed 11%, which is in agreement with what was found by Pound and Wertheim. The authors finally thank Professor A. Soltan for his advice during construction of the spectrometer and for his keen interest. There are 7 figures and 13 references, 4 of which are Soviet.

ASSOCIATION: Institute of Nuclear Research, Polish Academy of Science, Warsaw

4

SUBMITTED: April 25, 1959

Card 2/2

TOPA, N., ing.

First conclusions on the use of the R.I.M. cements in the prefabrication industry. Constr Buc 17 no.800:3 8 My '65.

1. "Progresul" Enterprise for Prefabrications, Bucharest.